

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Please amend the claims as follows:

Cancel Claims 1-24.

25. (New) A method for the production of carbon black or other flame aerosols comprising:

- a) removing heat from a flame by thermal conduction and/or radiation, the heat being released at a cooling surface which is a solid, cold surface or a liquid surface;
- b) forming a thin gas boundary layer between the flame and the cooling surface, in order to prevent the accumulation of aerosol particles on the cooling surface;
- c) accelerating or expanding flow formed by the flame and the boundary layer, in order to keep the flow laminar and to achieve as thin a boundary layer as possible; and
- d) withdrawing the aerosol formed from the vicinity of the cooling surface.

26. (New) The method according to Claim 25, further comprising cleaning the cooling surface.

27. (New) The method according to Claim 25, wherein the thin gas boundary layer is air.

28. (New) The method as claimed in Claim 25, wherein the boundary layer is produced by feeding a gas stream between the flame and the cooling surface.

29. (New) The method as claimed in Claim 25, wherein the boundary layer is guided into the region of the flame by movement of the cooling surface.

30. (New) The method as claimed in Claim 28, wherein the boundary layer is guided into the region of the flame by movement of the cooling surface.

31. (New) The method as claimed in Claim 25, wherein the boundary layer is introduced between the flame and the cooling surface by a deflector plate.

32. (New) The method as claimed in Claim 25, wherein the boundary layer is produced by a flow of a gas or vapor through the cooling surface having openings or pores.

33. (New) The method as claimed in Claim 25, wherein the boundary layer is produced by the vaporization of a liquid on the cooling surface.

34. (New) The method as claimed in Claim 25, wherein the flame is guided between two cooling surfaces having two boundary layers.

35. (New) The method as claimed in Claim 25, wherein the flame is cooled in a convergent gap or convergent channel having cooling surfaces and having boundary layers.

36. (New) The method as claimed in Claim 25, wherein the flame is cooled in a convergent gap between two rotating rolls having cooling surfaces and having boundary layers.

37. (New) The method as claimed in Claim 25, wherein the aerosol-containing flow layer is removed from the cooling surface by a nozzle through which gas flows.

38. (New) The method as claimed in Claim 34, wherein the flow velocity at the narrowest point of the convergent gap is chosen to be substantially higher than the exit velocity of the flame from the burner.

39. (New) The method as claimed in Claim 34, wherein the flow velocity at the narrowest point of the convergent gap is measured and regulated by a pressure difference present at the gap.

40. (New) The method as claimed in Claim 34, wherein the cooling surface is a metal surface which is cooled from its back by water.

41. (New) A device for carrying out the method as claimed in Claim 25, comprising a flame generator, a cooling surface against which the flame produced can be directed, and means for producing a gaseous boundary layer between said surface and said flame.

42. (New) The device as claimed in Claim 41, further comprising a deflector plate arranged between the flame and the cooling surface.

43. (New) The device as claimed in Claim 41, wherein the cooling surface has openings or pores through which cooling gas can pass.

44. (New) The device as claimed in Claim 41, wherein the cooling surface is formed by two rotating rolls.

45. (New) The device as claimed in Claim 41, wherein the cooling surface is a convergent gap comprising a revolving belt which is guided over a roll in the region of the gap and which passes through a liquid bath for cleaning and cooling.

46. (New) The device as claimed in Claim 45, wherein the belt is porous and is impregnated with a liquid.

47. (New) The device as claimed in Claim 45, wherein the belt is a porous textile and is impregnated with a liquid.

48. (New) The device as claimed in Claim 45, wherein the gap width at the narrowest point of the convergent gap can be adjusted in the range from 0.5 to 10 mm.

49. (New) The device as claimed in Claim 41, wherein the flame has a base and the distance between the base of the flame and the cooling surface can be adjusted.

50. (New) The device as claimed in Claim 41, wherein the flame has a base and the cooling surface has a convergent gap and the distance between the base of the flame and the narrowest point of the convergent gap can be adjusted.

51. (New) An unclassified, untreated carbon black, having a pH less than or equal to 6.0, a residue on ignition less than or equal to 0.1% and the 5 μm sieve residue less than or equal to 200 ppm.

52. (New) A composition of matter comprising the carbon black as claimed in Claim 51 and a member selected from the group consisting of rubber, plastic, printing ink, ink, inkjet ink, toner, a finish, paint, paper, bitumen, concrete, other construction materials and mixtures thereof.